

REMARKS

The Office Action dated April 27, 2009 has been fully considered by the Applicant.

A new specification is submitted herewith merely to correct translation errors. No new matter has been added.

Applicant submits the attached Information Disclosure Statement, along with copies of the cited references within three months of receipt thereof. These references have been previously cited in the corresponding issued British Patent No. 2429627 and in corresponding European Application No. 05738466.1. However, the main homepage for JkartIndia.com has a copyright date of 2006 and therefore does not pre-date Applicant's May 7, 2004 priority date. The earliest date of the webpage for the VitaMax product is July 2004. This date also does not pre-date the earliest priority date of Applicant's invention. There is no other clear date on the VitaMax web page to suggest the product on the website was actually available before the earliest priority date of Applicant's invention.

Claims 1- 4 have been cancelled. Claims 5-11 are new. No new matter has been added. Support for the new claims can be found in Applicants' new specification on Pages 9-25.

Claim 1 rejected under 35 USC 103(a) as being anticipated by United States Publication No. 2005/0266018 to Boreyko in view of Aunt Clair's Fruit Lax, and Natural Health Web is traversed herewith.

Applicant believes that the Boreyko publication and the "Aunt Clair's Fruit Lax" article are not properly cited references since each has a date of disclosure after Applicant's May 7, 2004 priority date. The Boreyko publication was filed 27 May 2004 and the "Aunt Claire's Fruit Lax" article is dated 2009.

Applicant's new claim 5 is directed toward a composition for a mixed fruit concentrate for use as an intestinal constipation product comprising: formosa papaya from 35% to 42%; pineapple from 9.5% to 19%; apple from 10.5% to 15%; plum from 9% to 14%; and thickening agent from 0.2% to 0.4%.

Applicant's invention teaches the selection of tested fruits, tested preparation of those fruit, and tested specific time, temperature, and method of cooking those fruits to provide a mixture for use in helping in the treatment of intestinal musoca and in the regulation of the intestine.

The article entitled "Constipation Cure Tips—Home Remedies for Constipation" by Peter Rodrick provides a list of home remedies for constipation. The list includes several types of fruit along with suggestions for eating each fruit. However, the Rodrick article does not teach or suggest a mixture of cooked fruit for use in relieving constipation having specific composition and quantities of products as in Applicant's invention. In addition, the Rodrick article does not teach or suggest the use of a thickening agent, as in Applicant's invention.

Further, the Roderick article does not teach or suggest a method of manufacturing a mixture having specific amounts and procedures for cooking fruit, as taught in Applicant's invention.

Therefore, Applicant sincerely believes that the Rodrick article does not teach or suggest Applicant's new claims 5-11.

Claim 2 has been rejected under 35 USC 103(a) as being unpatentable over the above combined references as applied to claim 1 and further in view of United States publication No. 2006/188636 to Choi. Applicant respectfully requests reconsideration of the rejection.

Claim 2 has been currently canceled, and as stated above the Boreyko publication and the "Aunt Clair's Fruit Lax" article are not proper references since Applicant's invention predates each.

The Choi publication refers only to use of a Carica papaya and not toward a mixture of different types of fruit, as in Applicant's invention.

The research conducted in Applicant's invention indicated that it was necessary to provide a mixture of fruits in the quantities and by the process set forth in Applicant's invention to ensure the efficiency of the product. Applicant's process teaches that some fruit require peeling and some require straining and that the proper peeling and straining of the particular fruit help to ensure the effectiveness of the product.

In addition, the research found that it is helpful to include some fibers in the product since they may be consumed by a bifidobacterium and because the fermentation provides some essential acids that aid in the proper functioning of the intestine.

Applicant sincerely believes that new claims 5-11 are not taught or suggested in the Choi publication and therefore respectfully requests reconsideration of the rejection.

Applicant believes that the amendments made herein have overcome each of the Examiner's rejections and, therefore, Applicant believes that the application is now in condition for allowance and such action is earnestly solicited. If any further issues remain, a telephone conference with the Examiner is requested. If any further fees are associated with this action, please charge or refund Deposit Account No. 08-1500.

Respectfully Submitted

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Dated: 27 July 2009

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MIXED FRUIT CONCENTRATES AGAINST CONSTIPATION AND METHOD FOR PREPARATION THEREOF

CROSS-REFERENCES TO RELATED APPLICATIONS

This is patent application is the United States National Phase of PCT Application No. BR/05/0071 filed 5/4/2005 which claims priority to Brazil patent Application No. P10401302-6 filed 5/7/2004 both of which are incorporated herein by reference.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AGREEMENT

Not Applicable

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

Not Applicable.

INCORPORATION BY REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC

Not Applicable

BACKGROUND OF THE INVENTION

~~With the above mentioned invention patent, we present the A~~ process of manufacturing mixed fruit concentrates through the mixture of ~~steam-cooked fruit~~ which is cooked either using direct or indirect steam heating which has, ~~directly or indirectly, with special nutritional characteristics, to attain~~ which meet the formulae of ~~[[I]]intestinal~~ Regulating regulatory ~~[[P]]products, focused to take~~

~~care of the segment on meeting the needs~~ of consumers with intestinal constipation and other gastrointestinal problems[[. Given the]], ~~giving its' attributes of staple fiber being a source of fiber~~ and other nutrients, [[the]] ~~as such these~~ products help in [[the]] treatment of intestinal mucosa and in the ~~regularity~~ regulation of the intestine.

The 'arrest of womb', popular name given to [[I]]intestinal constipation, currently [[reaches]] affects about twenty percent of the population. ~~In infancy attack, the majority are boys and [[I]]in adults [[it's]] women~~ are more affected, ~~however this ratio balances as from sixty years.~~ This difference levels off in people over sixty years of age. The causes are diverse, ~~varying ranging from the style of modern life, that includes~~ modern lifestyle, including ~~little staple fiber ingestion of fiber and of[[,]] liquids and sedentary life, even to the medicines use~~ little physical activity through use of medicine, hormone alterations, neurological and muscular pathology, psychiatric ~~situations~~ conditions and anatomical abnormalities of the large intestine. The symptomatology of intestinal constipation is widely varied in a person, as well as from one person to another, but it always ~~brings great~~ has important repercussions such as: anxiety, indisposition, loss of appetite and mood ~~change of moods~~, abdominal distension, chronic headache and nausea and in some cases even fever.

~~BACKGROUND OF THE ART~~ Description of the Related Art

Currently the following products are available in the market, with their respective classifications, characteristics, advantages and disadvantages.

Corporate names: Metamucil and Mucilium

Composition: Psyllium

Characteristic: Mass formers: They increase the ~~fecal cake~~ faecal matter, facilitating its

passage through the intestine. ~~They are indicated for~~ They are most often prescribed for long-term treatment over long periods, since ~~they act on the~~ have a physiological action [[form]].

Excessive use can provoke fecaloma.

Corporate names: Agiolax and Plantax

Composition: Seed of Plantago Ovatta

Characteristic: Mass formers: They increase the ~~fecal cake~~ faecal matter, facilitating its passage through the intestine. ~~They are indicated for~~ They are most often prescribed for long-term treatment over long periods, since ~~as they have a act~~ on the physiological [[form]] action.

Excessive use can provoke fecaloma.

Corporate name: Benefibre

Composition: Agar-Agar

Characteristic: Mass formers: They increase the ~~fecal cake~~ faecal matter, facilitating its passage through the intestine. ~~They are indicated for~~ They are most often prescribed for long-term treatment over long periods, since ~~as they act on the~~ have a physiological [[form]] action.

Excessive use can provoke fecaloma.

Corporate name[[s]]: Humectol-D

Composition: sodium picosulfate

Characteristic: Emollients and surfactants: They facilitate the water and fat mixture in the fecal mass, [[softening]] softening it.

They also stimulate the colonic secretion of water, sodium and chlorine.

Corporate name[[s]]: Magnesia milk

Composition: Magnesia hydroxide

Characteristic: Osmotic laxative: [[They]] This attracts water [[for]] to the interior of the intestine ~~intestinal light~~ since ~~they are~~ it is osmotically active.

[[They]] It must be administered with caution, especially in [[older]] elderly people, due to the risk of hydroelectrolytic disequilibrium.

Corporate names: Lactulona, Farlac and Lactulose

Composition: Lactulose

Characteristic: Osmotic laxative: [[They]] This attracts water [[for]] to the interior of the intestine ~~intestinal light~~ since [[they are]] it is osmotically active.

[[They]] It must be administered with caution, especially in [[older]] elderly people, due to the risk of hydroelectrolytic disequilibrium.

Corporate name[[s]]: Glycerin (suppository/enema)

Composition: Glycerin

Characteristic: Osmotic laxative: [[They]] This attracts water [[for]] to the interior of the intestine ~~intestinal light~~ since ~~they are~~ it is osmotically active.

[[They]] It must be administered with caution, especially in [[older]] elderly people, due to the risk of hydroelectrolytic disequilibrium.

Corporate names: Mineral oil, Purol and Agarol

Composition: Mineral oil

Characteristic: Lubricant: These are laxatives and they facilitate the movement of the fecal

~~cake~~ faecal matter[[,]] by lubricating the intestinal walls and diminishing water absorption.

They are not considered as good options for long periods, since they cause irritation of the anal canal and inhibit the absorption of fat-soluble vitamins (A, D, E, K).

Corporate names: Homeopatia 46, Agarol, Lactopurga and Purgoleite

Composition: Phenolphthalein

Characteristic: Stimulating and irritating agents: Two chemical groups are included: [[the]] diphenylmetaminic derivatives and [[the]] anthraquinonics. Both inhibit the absorption of water and electrolytes.

Their indiscriminate and ~~drawn out~~ prolonged use leads to the appearance of melanosis coli colonic and reduces motility due to nerve damage ~~nervous injury~~. It provokes what is known as Cathartic colon ~~the so-called "cathartics colon"~~.

Corporate names: Oucolax and Humectol-O

Composition: Bisacodil

Characteristics: Stimulation and irritating agents: Two chemical groups are included: [[the]] diphenylmetaminic derivatives and [[the]] anthraquinonics. Both inhibit the absorption of water and electrolytes.

Their indiscriminate and ~~drawn out~~ prolonged use leads to the appearance of melanosis coli colonic and reduces the motility due to nerve damage ~~nervous injury~~. It provokes what is known as Cathartic colon ~~the so-called "cathartics colon"~~.

Corporate name: Guttalax

Composition: Sodium picosulfate

Characteristic: Stimulating and irritating agents: Two chemical groups are included: [[the]] diphenylmetaminic derivatives and [[the]] anthraquinonics. Both inhibit the absorption of water and electrolytes.

Their indiscriminate and prolonged ~~drawn-out~~ use leads to the appearance of melanosis coli colonic and reduces motility due to nerve damage ~~nervous injury~~. It provokes what is known as Cathartic colon ~~the so-called "cathartics colon"~~.

Corporate names: [[Sacred]] Cáscar[[a]]á Sagrada, Ventre Livre and purgoleite

Composition: Cáscara Sagrada

Characteristic: Stimulating and irritating agents: Two chemical groups are included: [[the]] diphenylmetaminic derivatives and [[the]] anthraquinonics. Both inhibit the absorption of water and electrolytes.

Their indiscriminate and prolonged ~~drawn-out~~ use leads to the appearance of melanosis coli ~~[[colonic]]~~ and reduces motility due to nerve damage ~~nervous injury~~. It provokes what is known as Cathartic colon ~~the so-called "cathartics colon"~~.

Corporate names: Agiolax, Plantax, Florax, Laxtan, Tamarine, Tamaril, Novolax, Tamarix, Frutalax, ~~Laxarine~~ and Laxarine.

Composition: [[Sene]] Senna

Characteristics: Stimulating and irritating agents: Two chemical groups are included: [[the]] diphenylmetaminic derivatives and [[the]] anthraquinonics. Both inhibit the absorption of water and electrolytes.

Their indiscriminate and prolonged ~~drawn-out~~ use leads to the appearance of melanosis coli colonic and reduces motility due to nerve damage ~~nervous injury~~. It provokes what is known as Cathartic colon ~~the so-called "cathartics colon"~~.

BRIEF SUMMARY OF THE INVENTION

TECHNICAL PROBLEM

~~“THE MANUFACTURING PROCESS OF MIXED FRUIT CONCENTRATES AND THE FORMULATION OF CORRESPONDING INTESTINAL REGULATING PRODUCTS.”~~

Object of the present ~~[[patent]] invention is, was to~~ ~~[[surpass]] overcome~~ the inconveniences and limitations of the ~~[[currently]] existing products, given.~~ Therefore in view of the magnitude of this problem and the ~~[[great]] important~~ repercussions that it can cause to the individual, ~~[[,]] brought about the D[[d]]evelopment is necessary~~ of products or ~~compounds~~ ~~composites necessary~~, containing ~~[[staple]] fibers and other nutrients[[,]] that help to deal with~~ ~~assist in~~ the ~~treatment of the intestinal~~ ~~[[intestine]] mucosae and promote the regularity of the intestine, and most important of all, does but~~ ~~which do not cause~~ ~~[[greater]] additional~~ damages, ~~being able to be used with greater~~ ~~so to provide more freedom of use for a wider[[,]] for the most varied~~ group of people, ~~particularly~~ at a time when many products sold under the label of “natural can cause serious damage[[s]] for its irritating for their irritating effects on the ~~intestinal~~ mucosae and the neuromotor intestinal system, not being able to be used by long periods of time and nor in physiological situations special as in pregnancy and infancy intestinal motor neuron system. These factors means that they cannot be used in the long-term or under particular physiological condition, such as pregnancy and childhood.

TECHNICAL SOLUTION

Therefore, ~~based on the herein cited objectives and numerous research projects of innumerable researches~~, a mixture of cooked fruit~~[[s was]]~~ ~~has been~~ developed, which ~~has the capacity~~ ~~are able~~ to promote the desired ~~intestinal regulation~~ ~~regularity of the intestine~~. This rich ~~synergetic~~ mixture, ~~which is rich~~ in soluble ~~[[staple]] fibers~~, contains a ~~[[series]]~~ ~~variety~~ of vitamins and minerals,

~~[[beyond]] as well as other compounds composites that make this product it a functional food, that acts as a mass former for the staple because of the fiber content presence and as an agent a stimulant because of the particular fruit for the presence of some fruits, but without acting as an irritant the irritating effect.~~

Advantageous Effects

The formulae~~[[rizing]]~~ of ~~the~~ intestinal regulator~~[[ing]]~~ products of the present invention have a variety. patent comes with a series; of advantages. A~~[[a]]~~s already stated they contain fibers, as well as cited apart from staple fibers, it contains vitamins and minerals, mainly carotene and vitamins of the B complex and other compounds composite such as bromelin, ficine and papain. They do and does not contain Senne, which is a stimulate~~[[ing]]~~ and has an irritant effect on intestinal ~~irritating agent that causes intestinal mucosae. It does not possess any~~ They do not cause adverse effects or any significant ~~[[collateral]] side effects~~, only a pleasant appearance and flavor aspect and flavor. The products, ~~[[mashed]] either a puree or a mixture of~~ cooked fruits, are composed of up to 7 (seven) fruits~~[[,]]~~. ~~[[where e]]~~Each one contributes its own confers particular properties to the product, as well as valuable soluble fibers besides supplying considerable value of soluble staple fibers. These fruits have been selected mainly ~~[[from]]~~ for their known laxative effect and also for the absence of any composition which has an irritant effect on the intestinal muscosae. This makes it a product which can be used by a wide-range of people, from children to pregnant women. This kind of product is unique on the market. by the exemption of irritating intestinal mucosa composition, enabling safe usage for the most diverse group of people, varying from children up to pregnant women, thus becoming a product of unique application in the market.

~~The base of the development of~~ ~~[[t]]~~ ~~The~~ ~~[[object]]~~ development of the present ~~[[patent]]~~ invention is based on the properties of the fruit~~[[s]]~~ that compose the mixture of the product:

Papaya, apart from its laxative properties, is rich in antirust (antioxidant) nutrients, such as carotene, vitamin C and flavonoid~~[[e]]~~s, which in turn help~~[[s]]~~ to protect and to treat the already infected intestinal mucosae. Also it contains good volumes of numerous minerals, especially potassium and magnesium and papain that is ~~[[been]]~~ used in the combat ~~[[the]]~~ of diverse problems, among~~[[st]]~~ them indigestion, mainly because of ~~[[for]]~~ its proteolytic and anti-inflammatory action.

Pineapple is rich in vitamin C and potassium and contains bromelin, an enzyme similar to papain of the papaya. Bromelin was first used as a medicinal agent in 1957, and since then ~~has had~~ more than 200 published scientific papers ~~[[works]]~~ have been published in medical literature on its therapeutic applications. Its benefits include: facilitating digestion through numerous ~~innumerable~~ processes, mainly for its proteolytic action; reducing inflammation and edemas; inhibiting plaquetary aggregation; controlling appetite and speeding up cicatrization and among other functions, reducing flatulence.

~~[[The a]]~~Apple provides high quantities ~~supplies great amounts~~ of soluble ~~[[staple]]~~ fibers in ~~through~~ pectin, which increases the volume of the fecal matter ~~[[cake]]~~ and improves the capacity of the intestinal muscle to push. It also contains ~~[[acid]]~~ ellagic, clorogenic and coffeic, acids, ~~coadjuvantes of the~~ coadjuvants in anticarcinogenic action. It also contains quercitin ~~possess quercitrin~~, a protective ~~[[flavonoide]]~~ flavonoid which protects against cardiovascular illnesses, ~~sweeper of free radicals and preventive of carcino-genesis~~, besides acting as ~~protective gastric, for~~ increasing a gastric protector, as it increases the production of mucous in the stomach.

Plum is well known for its high laxative quality, besides offering good sources of carotene, ~~[[flavonoides]]~~ flavonoids, potassium and iron.

Fig contains mainly minerals such as calcium, iron and potassium and its seeds also are ~~supplies~~ an active and mild laxative ~~[[by]]~~ which stimulat~~[[ing]]~~e the muscles of the intestine. Added to these benefits, fig possess an enzyme called ficine that has proteolytic ~~[[action]]~~ properties, which is widely employed in the pharmaceutical industry for its anti-helminthic action.

Apricot~~[[,]]~~ is rich in soluble ~~[[staple]]~~ fibers, betacarotene, potassium, iron and copper.

Therefore, after analyzing all of the ~~[[cited]]~~ data, it is reasonable to conclude that the composition of the mixed fruit concentrates ~~[[clearly bring]]~~ has numerous benefits~~[[. M]]~~, mainly when dealing with the treatment of intestinal mucosae and the regular~~[[ity]]~~ation of the intestine. It is suggested that the treatment of mucosa should be done mainly ~~with antirust~~ through the use of antioxidant vitamins, with scaring properties, as well as for other cited compounds, such as ~~[[quercitrin]]~~ quercitin and bromelin. Whereas intestinal regularity is best achieved through mainly ~~reached by the increase of the~~ ~~[[staple]]~~ fiber consumption, ~~that also exert influence on~~ This also influences appetite~~[[,]]~~ and brings ~~bringing about~~ weight loss.

In the research carried out for the attainment of the optimized formula, a series of formulae where tested, some are as follows:

1.~~[[-]]~~ **Children ~~[[Infantile]]~~ intestinal regulator–Prescription of Papaya, with Pineapple, Apple, Pear and Plum measures**

1200 g Papaya (without peel or seed)

330 g of apple (3 peeled small apples, without seed)

330 g of pear (3 peeled small pears, without seed)

300 g of plum

250 g of pineapple (without peel and core)

250 g of sugar or

175 ml of concentrated apple juice~~[[+]]~~

50 g of fructose

Sequence of Adopted Process

Wash the plums and place them in a boiler (150ml water) to soften. The boiler must be covered. After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is separated from the seed stone. Remove the seeds stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the non- soluble fibers from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add plus fructose then mix and heat no more one minute. Bottle.

2. Day to Day Intestinal Regulator –Prescription of Papaya, pineapple, Apple, Dried Plum and Plum

Measurements:

1200 g Papaya (without peel or seed)

400 g of pineapple (without peel and core)

330 of mace apple (3 peeled small apples, without seed)

330 g of plum

66 g of black dried plum without seed

200 g of sugar or

175 ml of concentrated apple juice⁺

50g. of fructose

Sequence of Adopted Process

Wash the plums together with the dried plums, place them in a covered boiler (150ml water). After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is separated from the seed stone. Remove the seeds stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the non- soluble staple fibers from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add plus fructose then mix and heat no more one minute_[,]. Bottle _[off].

3. Day to Day Intestinal Regulator With Fig Prescription of Papaya, Pineapple, Apple, and Fig

Measure_[s]ments:

1200 g Papaya (without peel or seed)

600 g of figs (8 figs)

400 g of pineapple (without peel and core)

330 of apple (3 average apples peeled, without seed)

330 g of plum

200 g of sugar or

175 ml of concentrated apple juice[+]

50 g of fructose

Sequence of Adopted Process[:]

Wash the plums and place them in a covered boiler (150ml water). After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is separated from the seed stone. Remove the seeds stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the not non- soluble staple fibers of from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add plus fructose then mix and heat no more one minute[,]. Bottle off.

4. Intestinal Regulator – Prescription of Papaya, Fig, Pineapple, Apple, Plum and Dried Plum

Measure[s]ments:

1200 g papaya (without peel or seed)

600 g of figs (8 figs)

400 g of pineapple (without peel and core)
330 g of apple (3 average apples peeled, without seed)
330 g of plum
66 g of black dried plum without [[seed]] stone
200 g of sugar or
175 ml of concentrated apple juice $[[+]]$
50 g of fructose

Sequence of Adopted Process $[[:]$

Wash the plums together with the dried plums, place them in a covered boiler (150ml water). After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is separated from the [[seed]] stone. Remove the [[seeds]] stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the [[not]] non-soluble [[staple]] fibers [[of]] from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add [[plus]] fructose then mix and heat no more one minute $[[,]]$. [[b]]Bottle [[off]].

5. Intestinal regulator Plum Favor–Prescription of Papaya, Pineapple, Apple, Fig, Black Dried Plum and Plum

Measurements:

1200 g papaya (without peel or seed)

600 g of figs (8 figs)

400 g of pineapple (without peel and core)

330 g of apple (3 peeled small apples, without seed)

250 g of plum

200 g of black dried plum without seed stone

85 g of sugar or

175 ml of concentrated apple juice

50 g of fructose

Sequence of Adopted Process

Wash the plums together with the dried plums, place them in a covered boiler (150ml water). After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is separated from the seed stone. Remove the seeds stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the non-soluble staple

fibers from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add fructose then mix and heat no more one minute. Bottle.

6. **Intestinal Regulator with Apricot–Prescription of Papaya, Pineapple, Apple, Fig, Apricot, Black Dried Plum and Plum**

Measurements:

- 1200 g papaya (without peel or seed)
- 600 g of figs (8 figs)
- 400 g of pineapple (without peel and core)
- 330 of apple (3 small apples, peeled without seed)
- 330 g of plum
- 66 g of black dry plum without seed stone
- 66 g of apricot
- 200 g of sugar or
- 175 ml of concentrated apple juice
- 50 g of fructose

Sequence of Adopted Process

Wash the plums and together with the apricot and dried plums, place them in a covered boiler (150ml water). After twenty minutes, remove from the boiler and place in a pot together with the steamed water from the boiler, cover the pot and leave to cook, stirring regularly until the pulp is

separated from the ~~[[seed]]~~ stone. Remove the ~~[[seeds]]~~ stones and store the pulp in a cool place.

Wash, peel and remove the seeds and core of the other fruits. Cut fruits in small chunks and cook over an open fire in a covered pot till soft (that is when the apple and the pineapple can be easily perforated with a fork), take off the cover and boil until a half of the liquid has dried. Beat the boiled fruits together with the plum in a blender. Strain the pulp to remove the ~~[[not]]~~ non- soluble ~~[[staple]]~~ fibers ~~[[of]]~~ from the pineapple. Place in a pan, add sugar or concentrated apple juice, mix and heat until 28/32°Brix. ~~In the case of use~~ When using concentrated apple juice add ~~[[plus]]~~ fructose then mix and heat no more one minute~~[[,]]~~. ~~[[b]]~~Bottle ~~[[off]]~~.

Comments on the Various Formulae:

1.~~[[–]]~~ The ~~children~~ infantile version is sufficiently rich in papaya, ~~conferring~~ providing together with the pear a mild ~~action in laxative~~ effect terms, while offering a pleasant flavor of ~~easy acceptance~~ for to children between 1 and 4 years of age.

2.~~[[–]]~~ The ~~version~~ day to day version, without fig, is very mild and it is recommended either indicated ~~or~~ for sensitive people or for children between 4 and 6 years of age.

3.~~[[–]]~~ The version with fig and fresh plum ~~in nature~~ without ~~[[dry]]~~ dried plum is a solution for ~~those cases where the precriptions with~~ when dried black plum makes the product ~~more~~ too expensive.

4.~~[[–]]~~ The version with fig, plum and ~~[[dry]]~~ dried plum is the formula that obtained the best results

in general way of and general acceptance. It is sufficiently effective without causing active enough and ~~does not cause~~ colic or any other undesirable reaction.

5.~~[[--]]~~The plum version~~[[s plums]]~~ is for people who have better results with black plum.

6.~~[[--]]~~ The version with apricot is for people with serious intestinal constipation because the apricot when mixed with all the other fruits, besides ~~conferring~~ creating a sophisticated and ~~peculiar~~ unusual taste, increases the laxative function.

After the research was concluded, the optimized formulation has ~~possess~~ the following compositions in weight, ~~in the case of~~ for adult use:

FRUIT	PERCENTAGE
Papaya (Formosa)	35 to 42
Fig	17 to 25
Pineapple	13 to 19
Apple	10.5 to 15
Plum	9 to 13
Dry Plum	0 to 7
Dry Apricot	0 to 4
Sugar	0 to 10
Concentrated apple juice	0 to 9
Fructose	0 to 7
Thickening agent	0.2 to 0.4
Acidulate agent	Qsp
Preservative agent	Qsp

The acidulate agent could be citric acid, tartaric acid, malic acid, fumaric acid, lemon juice or any other allowed by the legislation.

The thickening agent could be modified starch, ~~gum to guar gum~~, xantana, carragena gum, carboxymethylcellulose, Arabic gum, Jati gum-- or others allowed by law ~~the legislation~~.

The ~~[[P]]~~preservative agent could be ascorbic acid and its sodium salts ~~of sodium~~, potassium and calcium, ~~[[acid]] benzoic acid~~ and its sodium salts ~~of sodium~~, potassium and calcium or other allowed by law ~~the legislation~~.

The justification for the chosen percentages is as follows:

The papaya cannot be very green or very ripe. When green it modifies the taste of the end product. When very ripe it makes the product very watery, modifying the consistency and loses a lot with peeling, making the correction factor very high, increasing the cost of the product. It is the fruit with a ~~[[greater]]~~ highest percentage in the formulation, therefore it functions basically as a vehicle for all the other components of the formulation, helping in the ~~baking~~ cooking of the fruit~~[[s]]~~ that are less watery and is available for the purchase throughout the year. When the percentage is increased the product becomes too watery and when lowered it loses efficiency.

The fig similar to the papaya cannot be too ripe nor green. When ~~[[it's]]~~ it is too green the taste of the product becomes unpleasant, and when too ripe, disintegrates during cooking, losing its laxative capacity. In lower percentages the product loses its effectiveness, mainly by reducing dramatically the ~~[[staple]]~~ fiber content. In larger amounts the product becomes commercially impracticable, due to the high cost of the fruit.

~~[[The]] P [[p]]~~ineapple when too green makes the product too acidic and unpalatable ~~confers exaggerated acidity to the product making it unpalatable~~. In lower percentages it is difficult to

process, since like the papaya it functions as a ~~baking~~ vehicle in the cooking process for the other fruit[[s]]. In larger amounts some people have a [[it has]] low tolerance for pineapple some people, mainly those who have gastric problems such as gastritis, esophagitis and sour stomach among others. ~~Besides~~ In addition to all of these properties it is available throughout the year.

~~The apple most preferential type~~ The best type of apple is “fuji”. [[,]] [[w]] When too green it causes the product to be unpalatably acidic ~~its acidity becomes unpalatable in the product.~~

[[The]] An apple of a more acid nature is [[the]] preferably used because of the ~~manufacture~~ of natural pectin content which [[, and it]] also helps to solidify the mixed fruit concentrates. If used in less than the indicated amount, the ideal consistency would not be reached, and in greater amounts increases the pectine. [[and]] T[[t]]his could cause the opposite ~~inverse~~ effect provoking intestinal constipation. Moreover, the apple [[confers]] contributes a pleasant taste, neutralizing the acidity of the other fruit[[s]], and it is not [[a very]] an expensive fruit and [[it]] is available throughout the year.

The plum, when too green ~~confers~~ adds high acidity to the product making it impracticable. The amount used is enough to act as a ~~reach the~~ laxative ~~intention~~, without increasing the cost of the product, since this fruit is not available in Brazil the whole year.

Besides [[the]] its properties, [[it]] the plum contributes [[confers]] a pleasant taste and compounded ~~composing~~ with the dried plum, which is very expensive, [[offers]] provides an important [[staple]] fiber content ~~amount~~ at a more reasonable price.

The dried plum is optional[[. I]]in the formulation. [[,]] [[a]] Although in small amounts, it represents comparative proportions to the other fruits in the same conditions. In larger amounts, it represents a higher ratio of [[staple]] fibers. Besides [[the]] its properties, it is sweet and helps to neutralize the acidity of the other fruit[[s]] and reduced the amount of sugar added to the product.

Less than the indicated amount is not recommended since it is the minimum amount needed necessary to guarantee the desired laxative effect.

Larger quantities are not used because of the amount of ~~[[staple]]~~ fibers. ~~Where the staple fibers are greater,~~ When there is a high fiber content, the user would have to include large quantities of liquids on a daily basis and most people do not have this habit, thus the opposite ~~inverse~~ effect would occur. Instead of being a laxative, mixed fruit concentrates could cause constipation. Apart from these arguments, dried plums is an expensive product, which is quoted in dollar, and depending on the quantity used, the product could become unfeasible.

Apricot is also optional~~[[. I]]~~ in the formulation.~~[[,]] [[a]]~~ Although in small amounts~~[[,]]~~ for being in a ~~[[dry\~~ dried state, ~~represents~~ when compared proportionally to the other fruit~~[[s]]~~ in the same conditions, it represents a large ~~[[great]]~~ amount, principally ~~mainly~~ ~~when as~~ it relates to the ratio of ~~[[staple]]~~ fibers. Besides ~~[[the]]~~ its properties, it ~~[[confers]]~~ contributed ~~to the product~~ a sufficiently sophisticated and interesting taste to the product. Less than the indicated amount is not recommended because this is the minimum amount necessary to guarantee the desired effect to increase the faecal matter ~~[[cake]]~~. On the other hand, larger amount are not recommended because ~~[[of]]~~ the amount of ~~[[staple]]~~ fibers would also be greater and in this ~~[[in]]~~ case the user would have to have a diet of large quantities of liquids daily. Since most people do not have this habit, instead of being a laxative, mixed fruit concentrates could have the opposite ~~inverse~~ effect. Apart from these arguments, apricot is even more expensive than dried plum and depending on the quantity used, the product could become unfeasible.

Sugar or concentrated apple juice and fructose are in the range of its maximum amount. This is the ideal amount so that the mixed fruit concentrates become pleasantly edible and can be eaten by a ~~[[the]]~~ spoon~~[[fuls]]~~.

After the research was concluded, it was concluded that the optimized formula~~[[tions]]~~ should contain ~~possess~~ the following compositions in weight~~[[,]]~~. ~~[[i]]~~In the case of children use:

FRUIT	PERCENTAGE
Papaya (Formosa)	41 to 47
Apple	11.5 to 12.5
Pear	11.5 to 14
Plum	11 to 14
Pineapple	9.5 to 10.5
Sugar	0 to 12
Concentrated apple juice	0 to 10
Fructose	0 to 8
Thickening agent	0.2 to 0.4
Acidulate agent	Qsp
Preservative agent	Qsp

The acidulate agent could be citric acid, tartaric acid, malic acid, fumaric acid, lemon juice or any other allowed by law ~~the legislation~~.

The thickening agent could be modified starch, ~~gum to~~ guar gum, xantana, carragena gum, carboxymethylcellulose, Arabic gum, Jati gum-- or others allowed by law ~~the legislation~~.

The ~~[[P]]~~preservative agent could be ascorbic acid and its sodium salts ~~of sodium~~, potassium and calcium, ~~[[acid]]~~ benzoic acid and its sodium salts ~~of sodium~~, potassium and calcium or other allowed by law ~~the legislation~~.

The justification for the chosen percentages is a follows:

The papaya as in the previous formula ~~does not have to be~~ cannot be too ripe nor too unripe ~~green excess~~ for reasons already mentioned. The percentage is more than in the original forumla~~[[s]]~~e

mainly to compensate for the percentages that are lower, for example, that of the pineapple. In lower percentages the product ~~[[it]]~~ loses consistency ~~of the product~~ and in higher percentages the product loses its efficiency.

The percentage of apple ~~is had its percentage~~ increased mainly to increase the consistency of the mixed fruit concentrates which ~~los~~ ~~[[t]]~~ es consistency due to the increase of the volume of papaya.~~[[, h]]~~ However, this is the maximum amount recommended, otherwise the efficiency of the product will be affected due to the high content of pectin which has been added to the formula.

The pear when it's too green confers an unpleasant taste to the product and when it's too ripe becomes very watery, loses consistency and it does not help to give bind to the product, besides having its correction factor very high, it also increases the piece of the product. ~~[[For]]~~ Because of its mild laxative property it provides ~~confers to the infantile intestinal~~ a less aggressive combination, mainly for children over two and under four years of age. Besides ~~[[the]]~~ its properties, in this ~~amount~~ quantity the pear helps to neutralize the acidity of the other fruit~~[[s]]~~, without increasing the price of the product and it's available throughout the year.

The percentage of plum is ~~[[in]]~~ similar to that ~~percentages as~~ in the previous formula.

The pineapple has had a reduction in percentage to make the product more palatable for children between 2 to 4 years of age, however if reduced ~~[[lower]]~~ further, would cause the product to lose its properties.

The sugar or concentrated apple juice and fructose was also increased so that the flavor of the product would be more suitable for children ~~become more adequate to the infantile public~~.

DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, ~~object of the patent~~ FIG 1 has been attached with the block diagram of the process.

DETAILED DESCRIPTION OF THE INVENTION

The ~~[[M]]~~manufacturing ~~[[P]]~~process of mixed fruit concentrates is given in the following sequence:

a) Clean and cut the pineapple in cubical pieces 3 to 4 cm and place them in boiler 1 with indirect water of vapor heating until soft (~~the adequate point is when the pieces of the pineapple can~~ be easily perforated with a fork).

b) Cook with water for 10 to 20 minutes, remove, then beat in a blender and strain to remove the fibers of the pineapple (the size of the strainer has holes that allow strawberry seeds to pass). Transfer the pulp to boiler 3, together with the pulp of the other fruit~~[[s]]~~.

c) Wash the plums and remove the ~~[[seeds]]~~stones then place them together with the dried plum and the other ~~fruits duly~~ washed, peeled, ~~[[un]]~~deseeded fruit that has to be ~~[[and]]~~ cut in the size of cubical pieces of 3 to 4cm, with the exception ~~[[is]]~~ of the fig which must be cut to remove~~[[d]]~~ only the stem.

d) All these fruit~~[[s]]~~ must be cooked in water for approximately 20 to 30 minutes in boiler 2 with indirect water vapor heating, stirring constantly until soft or until the apple pieces can be easily perforated with a fork.

e) When ready, remove from the ~~[[fire]]~~ heat and beat in the blender.

f) Transfer this fruit pulp to boiler 3 with indirect water vapor heating with the pulp of the pineapple, adding sugar or concentrated apple juice and thickening agent until it reaches around 28 to 36° Brix, mixing and heating between 90 to 95°C., adding acidulate agent, the necessary preservative agents and finally fructose if apple juice concentrated was used. In this case, stop heating one minute after adding introduction.

g) Bottle the product at this temperature and maintain [[At]] this temperature for the product ~~must be bottled and kept~~ between 30 to 40 minutes in a bain[[s]]-marie.

Alternatively, the plums could be pre-cooked in direct vapor, in a separate covered boiler till soft. After 15 minutes, they must be removed and placed in boiler with the water from the vapor. Cover[[ed]] the boiler in which the plums are being cooked, stirring constantly until the [[seeds are]] stone separate[[d]]. Remove the [[seeds]] stones and beat in the blender, then leave the pulp in a cool place. When the pulp of the other fruit[[s]] is ready, transfer the pulp of the plums to boiler 3.

Alternatively, the pineapple could be cooked with all the fruit and in this case, all the fruit[[s]] will be beaten together in the blender [[together]] and must be then strained [[after]] to remove the fibers of the pineapple.

Alternatively, sterilization could be complemented with ~~by the action of~~ gamma rays or any other type of radiation allowed by law the legislation, or an [[use]] autoclave could be used.

INDUSTRIAL APPLICABILITY

Whenever possible fresh fruit should be substituted with pulp. This is with the aim of simplifying production while also benefiting from control over the origin of the fruit (provision of certificates), and of reducing labor costs at the initial stage of production (washing and peeling).

Irrespective of the fruit being in its fresh or in pulp form, the weighing and ~~fabrication~~ production process is basically the same as described. Normally we use pulp for papaya, apple and pineapple, while for fig and plums, the fresh natural-form is preferred due to seasonality.

a) Wash the plums and remove the seed stone, wash, peel and cut the figs ~~without removing the~~ stem, beat them in a blender.

b) Strain the pineapple to remove the staple fiber, transfer it to the boiler with the other fruit[s].

c) Mix and steam cook all the fruit[s] in a boiler with vapor heating directly or indirectly, add sugar or concentrated apple juice, add thickening agent until it reaches 28° to 36° Brix, stirring constantly and keeping the temperature at between 90° to 95° C., add acidulate and preservative agents and finally fructose when apple juice concentrated was used. In this case, stop heating one minute after addition introduction.

d) Bottle ~~off~~ the product and place in bain[s]-marie for 30 to 40 minutes or an ~~use~~ autoclave can be used.